CRAFTS AND INDUSTRIES IN MEDIAEVAL ORISSA

(Cir. A. D. 600-1200)

By

Ayodhya Prasad Sah

Although agriculture formed the predominant feature of Orissa's economy, several crafts and industries developed during this period. Detailed information about the crafts and industries of Orissa is not available. However, we may discuss those which are known from the existing monuments, epigraphic records and such literary texts as the *Mānasollāsa* and the *Yuktikalpataru*.

Textile industry : The manufacture of textiles appears to have been carried on with great success in Orissa during our period. Since the time of Kauṭilya,[1] Kaliṅga was one of the main centres of this industry like Bengal, Kāmarupa, Magadha, Madurā, Aparānta, Kāsi, Vatsa and Mahisa. The Kaliṅgas manufactured fine clothes which attained a special celebrity.[2] The *Mānasollāsa*[3] (A. D. 1127-38) refers to a long list of fabrics intended for royal use and mentions the places of their origin. The name of Kalinga figures in it along with other names such a Nagapaṭṭana (Negapatam), the Chola country, Anilavada (Anahaillapataka in Gujarat), Mulasthāna (Multan) and Vaṅga. This shows that Kaliṅga produced clothes of high quality during this period. Sculptural representations on the great temple of Bhuvaneśvara show that fine brocaded fabrics were produced in Orissa. Referring to a specimen of this cloth R. L. Mitra truly remarks that "in neatness, elegance and richness of design and execution, it is in no way inferior to the finest production of the Benares loom of the present day."[4] Such fabrics must have been highly prized articles of luxury which the rich section of community alone could have afforded to use.

---

1. *AS.*, 11.2
2. B. C. Mazumdar, *Orissa in the Making, p. 46.*
3. *Mānasollāsa*, III, 1017-20.
4. R. L. Mitra, *Antiquities of Orissa*, I, p 80

Different items of dresses were prepared e. g. *Dhotis*, *Sāḍis*, *chādara* or scarf, *pāyajāma* or drawers etc. as known from a survey of the sculpsures of the period. Textile manufacture must have opened occupations to a large number of people.

Iron Industry : Orissa made considerable progress in the field of metallurgy. R. L. Mitra is of the opinion that iron was probably obtained from Talcher, where it is smelted to this day, and was of excellent quality.[5] It was used for various purposes during our period, especially for building temples. Oriya architects used iron beams which they could forge with ease and move with tolerable felicity. The most fascinating remains of their skill of this period are the iron beams, all of unwrought iron in the temples of Bhuvaneśvara and Puri. About 239 beams ranging upto 17 feet long and upto 6" by 4" or 5" by 6" section have been used in one of the puri temples (the Garden Temple) alone.[6] Not a single wooden beam has been used in the Bhuvaneśvara temple as observed by Stirling.[7] Iron beams are also seen in the Konarak temple, which belongs to a later period. Percy Brown[8] remarks that beams were forged, and that "the larger ones were evidently produced welding together a number of blooms of wrought iron by means of hammers. However, this process of forging beams seems to have been known only to Orissa."

This was Orissa's great age of temple building, and as such it may be assumed that these building activities must have helped the growth of such subsidiary industries as the manufacture of tools and implements necessary for building and stone carving and for preparing bricks, mortars and lime, and for stone quarrying. The fine workmanship on stone indicates that iron instruments of great fineness were used.

Iron was also probably used for the manufacture of weapons and armaments. Orissa's sculptures of this period afford examples of the battle-axe, the sword, the daggers and their varieties, etc. The various forms of the battle-axe noticed at Bhuvaneśvara show that it was made in large numbers. The size varied; many elaborate axes are seen in the hands of a statue of Gaṇesā in the Great Tower.[9]

---

5. R. L. Mitra, op-cit. I, p.36
6. *SE*. p. 519.
7. N. K. Sahu (ed), *History of Orrissa*, II, p. 267.
8. Percy Brown; *Indian Architecture*, p. 127.
9. R. L. Mitra, op. cit,, 1, p. 122.

Kaliṅga had a reputation for producing swords. The *Yuktikalpataru* of Bhoja states that Benares, Magadha, Nepal, Saurashtra and Kaliṅga were noted centres for the manufacture of swords.[10] Reference to swords is found in the epigraphic records also. An inscription[11] of Śailodbhava king Mādhavarāja mentions that he repulsed the armies of all the enemies by the sharp edge of his sword. A sculptural representation in the temple of Gaurī at Bhuvaneśvara shows a double-bladed straight sword.[12]

Of the dagger or the short sword and its varieties, we find a great number of examples in the sculptures of Orissa. R. L. Mitra points out that in Orissa, this weapon seems to have been a great favourite.[13] On the Great Tower a number of statues in amatory positions are made to carry it in their waist hands.

Use of other Metals : Our inscriptions mention the goldsmith (*svarṇakāra*),[14] the blacksmith[15] (*Kamcharaka*), and the brazier.[16] This clearly shows that articles of different metals such as gold, silver, bronze and iron were manufactured in Orissa. The discovery of a large number of copper-plates indicates that copper industry must have provided employment to a large number of artisans in the state. However, no statues or utensils or coins of copper have been discovered. Therefore nothing definite can be said at present about the use of copper in other articles. The art of making jewellery must have flourished. The sculptures of this period abound in representations of a variety of ornaments such as *Kuṇḍala* (ear-ring), *Karṇaphula* (ear-flower), *ratnahāra* (necklace), *chandrahāra* (necklace), *kaṭibandha* (waist ornament), *keyura* (armlet), *kinkini* (leg and foot ornament), *bāju*, *tābij*, *tad* etc. A four-armed figure[17] of the Hypaethral temple of sixty-four Yoginis at Hirapur is seen adorned with various ornaments such as anklets, girdles, necklaces, armlets and *kapa* (ear-ornament). Recently a life-size image,[18] assigned to about the middle of the 11th century A. D., was found lying buried in

10. *Yuktikalpataru*, p. 170, verses 24-29.
11. IO., I, part II, p. 158.
12. R. L. Mitra. op. cit., I, p, 122.
13. *Ibid.*, P. 123.
14. *E. I.* XXVIII. part VI, p. 256, 11. 131-34.
15. *JAHRS.*, VII, part II., pp. 130-31.
16. IO. I, part II, p. 284,.1.35.
17. *OHRJ.* II, No. 2, p. 25.
18. *Ibid.*, p. 41

a plot of land situated near the Brahmeśvara temple of Bhuvaneśvara. This statue has a four stringed necklace and a six stringed *ratnahāra* around the neck. The other ornaments are katibandha, *keyura* with *kirtimukha* design in the centre and anklets of the nupur-type. Thus the profuse use of ornaments in the sculptures of the period attests the prosperity and advance of jewellery.

We do not come across any reference to the ornaments made of gold and silver, but as some coins of gold[19] and silver[20] were current in Orissa during this period, it may be assumed that most of the ornaments mentioned above may have been manufactured either from gold or silver.

Ornaments were also probably manufactured from pearls, which were available in Orissa during the 7th century A. D. The Chinese pilgrim states that pearls were used in commercial transactions in Koṅgoda.[21] These precious ornaments set with pearls may have been used by the kings, queens, feudatories, great officers and the rich persons of the state.

Stone Work Industry : The remains of massive temples and stone images in the different parts of Orissa belonging to the period under review testify to both the volume and skill of the stone work. The construction of numerous temples in Orissa from the 7th to the 13th century A. D. apparently provided means of livelihood to a large section of the people. The building activity centred round the sacred city, Bhuvaneśvara, a temple town which alone contains hundreds of temples, large and small, in various stages of preservation. Temples were constructed all along the coast in the north-east and south-west.

The Bhuvaneśvara temples are all constructed either of reddish granite resembling sand stone, or else of the free stone which was plentifully provided by the neighbouring hills,[22] and the Puri temple is chiefly constructed of the coarse granite, resembling sand stone, which is found in abundance in the southern part of Cuttack.[23] It is creditable that the Oriya architects raised such heavy blocks of stone and iron beams to such great heights at a time when modern contrivances were not known.

---

19. *EI.*, XXX, Part III, p. 94; *JAHRS.*, V, No. 4, pp. 249-50
20. *Ibid.*, XXXIV, part II, p. 100; *JAHRS.*, VII, part II, p. 132; VI., XXIX, part VI, p. 169.
21. Beal, op. cit., II, p. 207.
22. N. K. Sahu (ed), op. cit., II, p. 267.
23. *Ibid.*, p. 274.

In the sculptures also no less amount of efficiency is to be noticed during this period. The Buddhist sculptures of Ratnagiri, Udayagiri, and Lalitagiri hills (Cuttack district) are masterpieces of sculptural art.[24] At Jaipur have been discovered the four big images of Bodhisattva, Padmapāṇi and the Mātrikas, which speak eloquently of the artistic activities of this part of the state during the seventh and eighth centuries A.D.[25] Two huge rock cut statues of Viṣṇu Anantasayana (respectively 50 ft. and 42 ft. 6 inches long) of Sarang and Bhimkand along the Brahmani Valley in the Dhenkanal and Talcher districts[26] of Orissa show the existence of the craft of creating sculptures out of the present rock in the 9th and 10th century A. D. In the temple of Rājarāni of Bhuvaneśvara have been carved out eight cardinal deities, which are in a good state of preserv.-tion, and the statue of Varuṇa is a fine specimen of image sculpture. Kramrisch rightly observes that "architecture in Orissa is but sculpture on a gigantic scale.[27] "We may therefore legitimately infer from the large number of temples and statues that stone work industry in Orissa was profitable and prevalent on a large scale.

Wood-work Industry : Wood-work industry was also in existence as is apparent from the archaeological remains and inscriptional references. The Bhuvaneśvara temples show that domestic furniture made of wood included bedsteads and stools. Referring to the bedstead of the Oriyas, R. L. Mitra points out that it was ordinarily like the ancient Egyptian and modern Indian charpoy.[28] For wealthy persons the frame work was set off with mouldings and carved out, and the legs were cut into various forms. A figure from the Mukteśvara temple exhibits a very simple form with a plain border and legs carved like lion's paws,[29] whereas another figure[30] from the Great Tower exhibits the richest bedstead in the Orissan sculptures, as correctly remarked by Mitra.[31] Wooden stools and cane *moras* were, it seems, the ordinary form of raised seats. Wooden stools appear to be of different forms.

---

24. *OHRJ*. III, No. 2, p. 78
25. *Ibid.*, p. 77.
26. *Ibid*.
27. *SE*., p. 651.
28. R. L. Mitra, op. cit., I, p. 102.
29. *Ibid*., I, p. 102, wood cut No. 26.
30. *Ibid*., wood cut No. 30.
31. *Ibid*., p. 102.

Doors of temples used to be made of sandal-wood, as evidenced by the only ancient door now to be seen in Orissa which occurs in the porch of the Great Tower of Bhuvaneśvara.[32] It is made of sandal wood and carved in a pattern somewhat like the one on the famous gates of Somnath. There used to be a class of people who earned their bread by means of carpentry, as is evident from the term *patakara* (splitter) used in an inscription.[33]

Boat making Industry : Orissa has got a network of rivers, which made boat-making an important industry. At Puri the Bhoga-Maṇḍapa of the Great Temple represents a boat. Purushottamadeva, in his lexicon *Trikāṇḍaśesha* gives the different names of boats playing in the rivers, used in coastal navigation. He gives a work *Padaraka* for kind of boats used by the Pulindas, who may be identified with Nulias, who are still to be seen in the coast of Puri and Ganjam districts and whose hereditary profession is catching fish [34]

It is well known from the account of Hiuen Tsang that Orissa maintained commercial relation with distant countries, which could not have been possible without boats.

Ivory Work Industry : Orissa was very rich in elephants, and we may therefore reasonably presume that it may have been a centre of ivory industry. An inscription[35] mentions the grant of land including the donee's privilege to enjoy *hastidanta* (ivory), which obviously suggests that luxury-articles were manufactured from ivory for the richer households.

Pottery : Potters *(Kumbhakāra)* are mentioned in the votive inscriptions in the Liṅgarāja temple of Bhuvaneśvara.[36] They used to supply cooking vessels to temples. An epigraphic record[37] dated the 12th century A. D. refers to the grant of two *vatis* of land to a potter for providing pots daily to be utilised in cooking the *bhoga* to lord Liṅgarāja This shows that potters were attached to the temples. It is obvious that such pottery was practised on an extensive scale and quite a number

32. *Ibid*., p. 36
33. *EI*. XXVIII, part VI., p. 256, 11, 131-34.
34. *OHRJ*., II, No. 3-4, p. 74
35. *EI*. XXVIII, part VII, p. 327.
36. *OHRJ*., II, No. 3-4, p. 53
37. *Ibid*.

of people earned their living by making it. Old potteries have been discovered at various places in Orissa such as, Salihundam, Mukhlingam, Nagarikotakam, Dantapuram (all in Ganjam district[38]) where the Gaṅgas ruled till 1132 A.D. Various types of *kalasas* (vases) were also probably made by the potters of this period. At least fifty different varieties are found on the temple of Yameśvara, to the west of the Great Tower of Bhuvaneśvara.[39] The sculptural representations of cups of goblets for drinking wine and water pots with a spout on one side are also noticed in Bhuvaneśvara.[40] R. L. Mitra thinks that the "bulk of them were of baked clay or terracotta such as are now so common in every part of India"[41]. Thus it appears that pottery was a well-developed industry in this state during the period.

Mirrors : We find certain sculptural representations of mirrors also during this period. In the niche of southern side of the Śatrughneśvara temple (assigned to A. D. 600) in Bhuvaneśvara, there is a figure of six armed Naṭarāja, who holds a looking glass in the upper hand.[42] Again, a female figure from Bhuvaneśvara in the museum of the Asiatic Society of Bengal is noticed holding a circular convex mirror by a cross strap on its back[43]. These specimens may lead us to conclude that mirrors were probably manufactured in Orissa during our period.

Tanning Industry : The land grants of our period refer to the right of the enjoyment of the tiger's skin (*vyāghra-charma*[44]). It suggests the existence of the tanning industry in Orissa which is a very old Indian industry going back to Vedic times.

Sugar : The cultivation of sugarcane was practised in Orissa. The reference to the term *gaudika* (maker of sugar) in an epigraph[45] dated A. D. 1230 clearly shows that sugar was manufactured from it in Orissa during this period. But we do not know anything about the process of its manufacture.

38. *JAHRS*, V, part III, p. 199.
39. R. L. Mitra, op. cit., I p. 109.
40. *Ibid.*, p. 110.
41 *Ibid.*
42. *OHRJ.* IV, No. 1-2, p. 41.
43. R. L. Mitra, op. cit., I, p. 101.
44. *EI.*, XXVIII, part VII, p. 237.
45, *Ibid.*, part VI., p. 256, 11. 131-34.

Salt : There is a mention of salt-tax officer *(lavaṇakaradhikārī)* in one inscription[46] of the Gaṅga king Choḍagaṅgadeva which indicates the existance of the salt industry in Orissa during this period. It is generally believed that salt manufacture and trade were carried on in Orissa from very ancient times. But we have nothing to substantiate this on the basis of historical evidence during our period, except the Gaṅga epigraph referred to above.

Oil Industry : The manufacture of oil seems to have been an essential industry in our period. The great demand for oil for lighting lamps in temples probably gave an impetus to this industry. There are several inscriptional references[47] to the gift of perpetual lamps to the temples under the Gaṅga rule in Orissa during our period. Consequently the oil pressing industry in Orissa must have been flourishing. Castor oil was generally used for temple-lamps, as can be gathered from an inscription[48] which mentions the grant of land for the supply of castor oil to a temple.

Perfumery : Perfumery was also one of the industries in Orissa during this period. There are ample references to the offering of sandal paste and incense to gods.[49] The word *Gāndhika*[50] (Perfumer) occurring in one of the inscriptions confirms that there were men in the state who were especially engaged in the occupation of perfumery. The perfumes may have been in demand by the rich and fashionable sections of society.

We find frequent mention of brewers (*saunḍika*) in the land grants of the Bhaum-kara kings[51] who ruled in *Uttara* Tosali, *Dakṣiṇa* Tosali and Koṅgoda *maṇḍala* between the 8th and 11th century A. D., and in the grants of their feudatories the Bhañjas[52] and Tuṅgas.[53] They were

46. *OHRJ.* III, No. 3, p. 157.
47. *MER.*, p. 14, No. 152; p. 15, No. 166; p. 14.No. 151 etc,
48. *JAHRS.*, VII, part IV., p. 232.
49. *JBORS.*, II, pp. 426-27.
50. *EI.* XXVIII, part VI p. 256, 11. 131-34.
51. *JBORS.*, II., pp. 246-27.
52. *Ibid.*, XVI, pp. 81-3; *EI.*, XXIX, pp. 85-6, *IHQ.*, XXI, p. 221.
53. *EI.*, XXV, No. 14,, 11. 12-20.

transferred to the donees along with the other subjects of village. This transference may lead us to conclude that liquor making was probably an indispensable rural craft in Orissa during those days.

Therefore the various crafts and industries practised in Orissa during rhis period included textiles, metal work, stone work, wood work, ivory work, pottery, tanning, sugar, salt and oil industries, perfumery, etc. There is nothing to show that the state itself played an important part in the industrial production, as we find in the Mauryan period; the iron beams of Bhuvaneśvara and Puri, however, seem to have been made in a royal foundry, no doubt. But most of the crafts and industries seem to have been carried on by individual families.